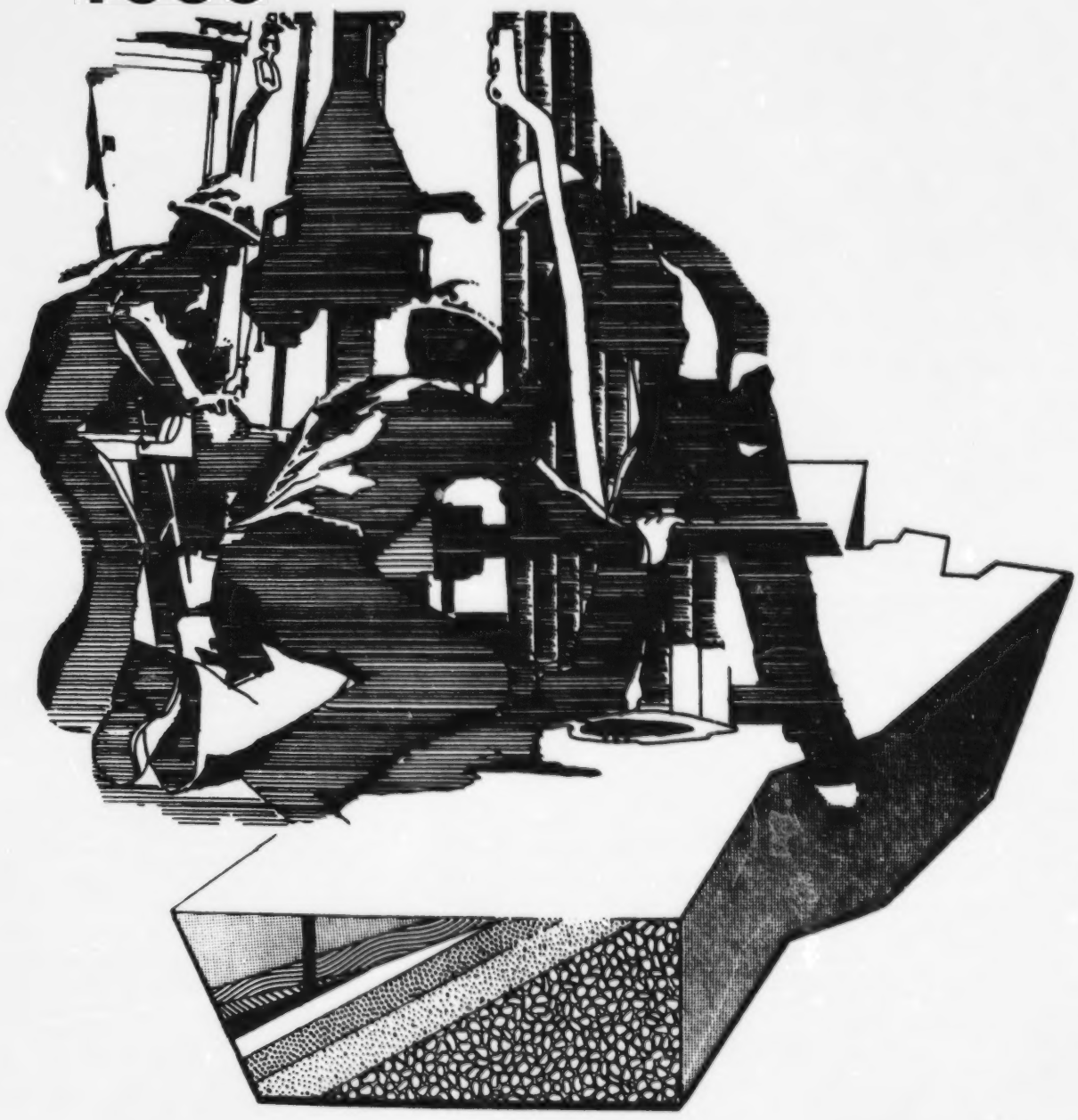
OIL ACTIVITY REVIEW 1999



Manitoba
Conservation
Petroleum and Energy

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Manitoba Oil Activity Review

1999

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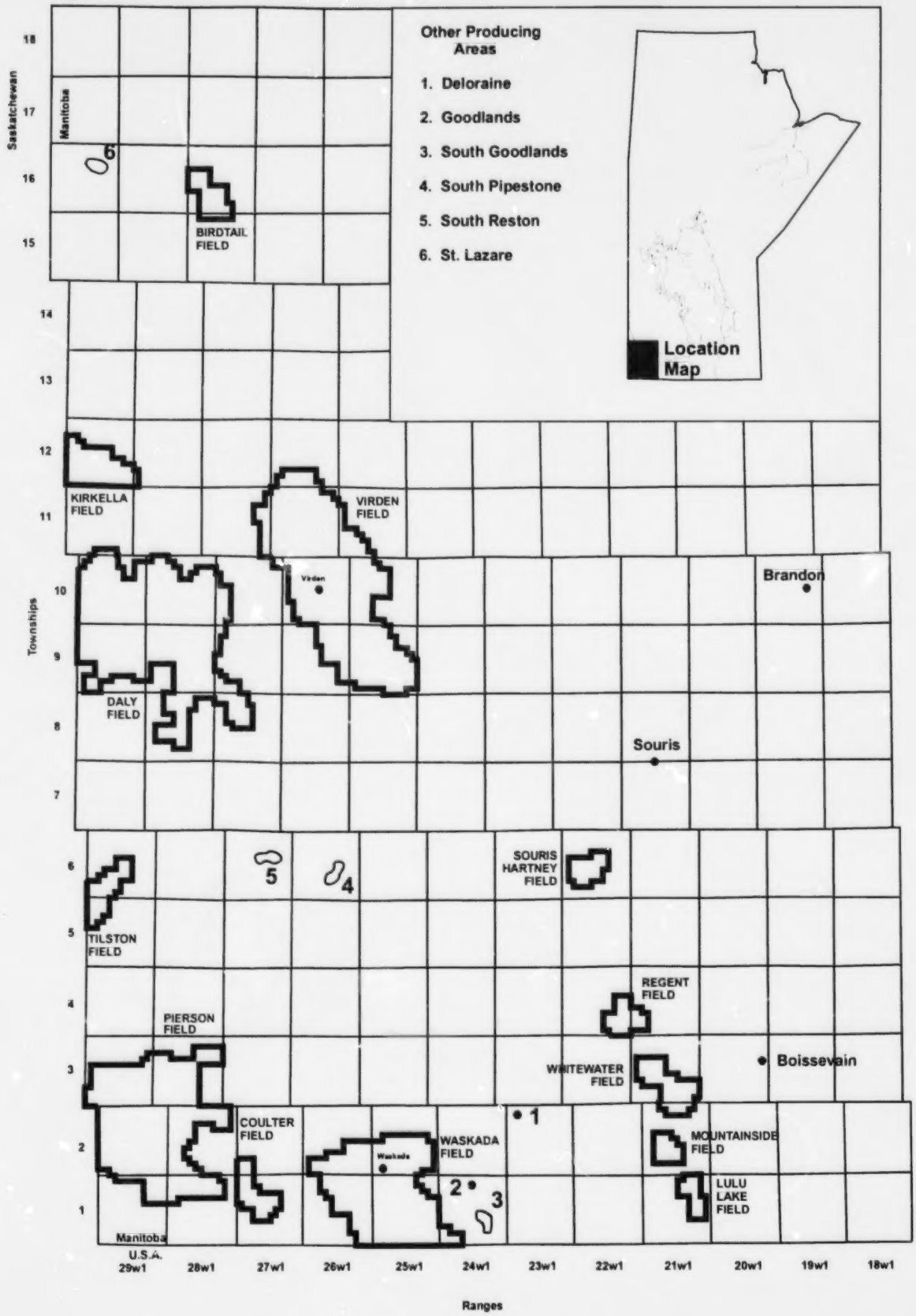
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1999 Highlights

- During 1999, 28 wells were drilled in Manitoba, a 32% decrease from 1998's total of 41 wells.
- Manitoba's annual oil production was down approximately 8% from 1998 production to 581 206 m^3.
- The value of oil produced in 1999 was approximately $95.1 million, a 35% increase from 1998.
- Provincial revenues from the oil industry (royalties, oil taxes, lease sale bonuses, rentals and fees) were $4.8 million during 1999, representing a 4% increase from 1998 ($4.6 million).
- Gross royalties payable to freehold mineral owners were estimated to be $10.4 million in 1999 (Federal and Provincial tax liabilities included).
- Surface rights owners received approximately $3.4 million from rental payments and bonuses during 1999.
- Municipal tax assessments on wells and oilfield equipment were estimated to be $26.9 million (with taxes paid amounting to approximately $2.4 million).
- Oil industry expenditures in Manitoba were estimated to be $57.1 million in 1999, a 7% decrease from 1998.
- Three geophysical programs, including one 3-D program, were run in 1999. Total coverage was 354 kilometres at a cost of approximately $269,724.
- Three sales of Crown oil leases covering 4 058 hectares generated $418,871 in revenue to the province in 1999, a 22% increase from the 1998 total of $344,454.
- As of January 31, 2000 there were 13 oil fields and 159 non-confidential oil pools designated in the province.
- Crude oil prices fluctuated throughout the year between $16.21-39.41/bbl. In 1999, Manitoba's average crude oil selling price was $26.42/bbl, compared with 1998's average of $18.54/bbl.

Crown Oil and Gas Dispositions

Three Crown oil and gas sales were held in 1999.

In the first lease sale, held on February 17, 1999, the average lease bonus price paid per hectare was $32.91. The average lease bonus price for the second lease sale, held on August 11, 1999 was $99.43 per hectare. The third lease sale held on November 17, 1999 had an average lease bonus price of $154.56 (refer to table for annual sale statistics).

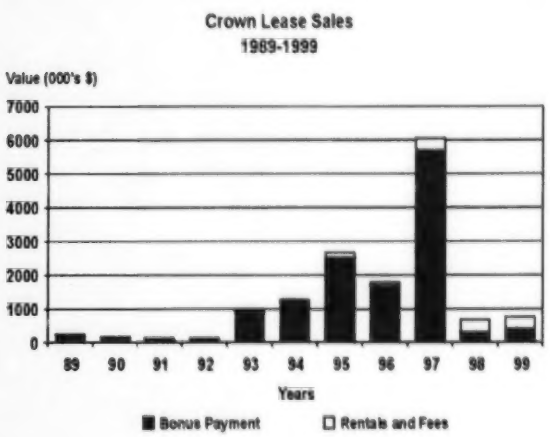
As of December 31, 1999, the total area of Crown oil and gas rights under disposition was 103 338 hectares all of which were held under leases. In 1999, the total area under disposition decreased by 13% compared with 1998.

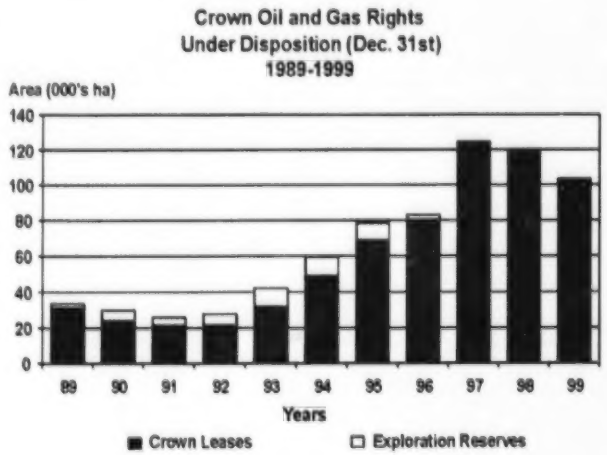
On December 31, 1982, deeper rights reversion provisions came into effect. Under these provisions, non-productive areas and rights below the producing formation revert to the Crown at the end of the first renewal of the lease term. These rights again become available for leasing by other parties interested in actively developing them.

Oil and gas leases have initial terms of five years. 1999 was the sixteenth year since lease sales were resumed in 1979 that lease holders had to surrender non-productive leases or apply for one-year extensions by paying additional rental penalties and committing to drilling programs. As a result, those leases surrendered will again be made available to other interested parties.

Freehold Mineral Owner's Leasing and Revenue

Approximately 80% of the oil and gas rights in southwestern Manitoba are privately owned (freehold). Companies may negotiate leases with freehold mineral owners in areas of current interest where leases have expired or where oil and gas rights are not presently leased. Freehold mineral owners receive revenue from signing bonuses, delay rental payments and royalties when production is obtained. Freehold royalties may range from 12 1/2 to 20% of gross production sales value. It is estimated that gross royalties payable to freehold owners in 1999 were approximately $10.4 million (not including signing bonuses and delay rental payments for new and non-producing leases and before payment of provincial and federal taxes).





Manitoba Crown Oil Lease and Reservation Sale Statistics 1947-1999

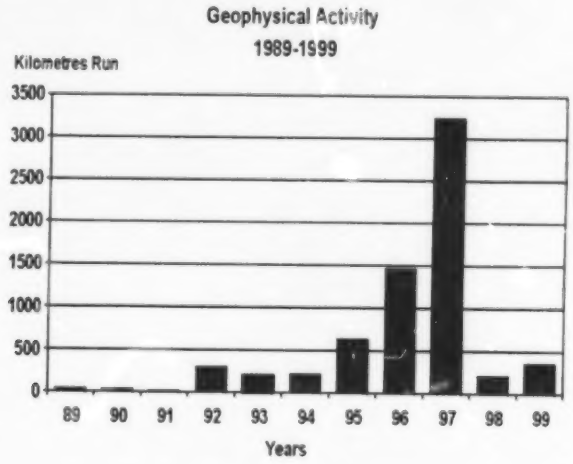
Year	Lease Sales						Reservation Sales						
	No. of Leases Sold	Area (ha)	Bonus ($)	Avg. Price ($/ha)	Highest Price ($/ha)	Lease Revenue ($)	No. of Res. Sold	Area (ha)	Bonus ($)	Avg. Price ($/ha)	Highest Price ($/ha)	Res. Revenue (4)	Total Revenue From Sales ($)
1947-53	DATA NOT AVAILABLE												
1954	31	4 184	82,814	19.79	37.37	88,291	0	0	0	0.00	0.00	0	88,291
1955	140	32 247	579,801	17.98	62.58	620,751	1	8 778	5,854	0.67	0.67	6,213	626,964
1956	28	4 534	43,902	9.68	79.09	49,682	4	255 016	105,587	0.41	1.33	106,587	156,269
1957	16	4 568	100,373	21.97	44.71	106,174	2	48 820	3,256	0.07	0.08	3.756	109,931
1958	0	0	0	0.00	0.00	0	1	10 291	101	0.01	0.01	351	351
1959	1	777	505	0.65	0.65	1,475	2	11 478	11,879	1.03	2.42	12,379	13,854
1960	1	65	4,103	63.12	63.12	4,193	0	0	0	0.00	0.00	0	4,193
1961	0	0	0	0.00	0.00	0	4	50 721	134,099	2.64	6.75	135,099	135,099
1962	2	260	1,327	5.11	12.62	1,668	1	7 464	24,706	3.31	3.31	24,956	26,624
1963	63	5 055	31,614	6.25	17.30	38,468	1	3 498	1,608	0.46	0.46	1,858	40,326
1964	40	9 467	109,125	28.47	388.06	120,717	1	5 641	778	0.14	0.14	1,028	121,745
1965	42	4 347	40,235	9.26	77.60	46,024	15	92 717	52,672	0.57	12.11	56,422	102,446
1966	31	4 417	24,086	5.45	64.22	29,850	6	38 689	62,886	1.63	2.08	64,636	94,487
1967	10	2 274	23,537	10.35	22.25	26,446	5	49 846	55,013	1.10	3.80	56,263	82,709
1968	19	3 599	22,630	6.29	18.92	27,265	6	46 040	31,426	0.68	4.45	32,926	60,191
1969	2	970	7,164	7.39	11.94	8,382	3	16 453	75,282	4.58	7.54	76,032	84,414
1970	8	3 580	10,094	2.82	8.08	14,596	0	0	0	0.00	0.00	0	14,596
1971	2	1 230	33,673	27.38	49.75	34,308	0	0	0	0.00	0.00	0	34,308
1972-78	NO SALES												
1979	86	11 064	897,885	81.15	315.17	929,855	3	4 736	40,888	8.63	12.23	47,558	977,413
1980	80	12 540	1,057,530	84.33	470.51	1,092,880	8	15 572	820,345	52.68	100.31	841,810	1,934,690
1981	85	12 312	1,074,958	87.31	257.26	1,109,988	5	5 376	611,199	113.69	178.43	619,169	1,729,157
1982	56	6 448	1,055,668	163.72	938.88	1,074,588	0	0	0	0.00	0.00	0	1,074,588
1983	66	9 255	1,032,267	111.54	762.34	1,058,705	1	1 024	40,192	39.25	39.25	41,722	1,100,427
1984	104	8 776	2,181,499	248.58	1,411.17	2,208,639	0	0	0	0.00	0.00	0	2,208,639
1985	173	15 471	4,215,083	272.45	1,593.78	4,262,410	0	0	0	0.00	0.00	0	4,262,410
1986	103	7 904	891.358	112.77	602.00	916,268	1	768	20,285	26.41	26.41	21,495	937,763
1987	57	5 813	577,253	99.30	230.23	594,635	0	0	0	0.00	0.00	0	594,635

Manitoba Crown Oil Lease and Reservation Sale Statistics 1947-1999 (cont'd)

	Lease Sales						Reservation Sales						
Year	No. of Leases Sold	Area (ha)	Bonus ($)	Avg. Price ($/ha)	Highest Price ($/ha)	Lease Revenue ($)	No. of Res. Sold	Area (ha)	Bonus ($)	Avg. Price ($/ha)	Highest Price ($/ha)	Res. Revenue (4)	Total Revenue From Sales ($)
1988	29	3 429	348,439	101.62	313.07	358,462	1	2 112	84,231	39.88	39.88	87,121	445,583
1989	31	2 832	231,918	81.89	400.17	240,548	0	0	0	0.00	0.00	0	240,548
1990	20	1 488	111,930	75.22	250.00	116,650	3	4 128	49,731	12.05	21.33	55,641	172,291
1991	24	1 920	124,275	64.73	184.59	130,275	0	0	0	0.00	0.00	0	130,275
1992	43	3 105	103,135	33.22	118.61	113,047	2	1 855	17,642	9.51	12.87	20,460	133,507
1993	108	14 698	762,578	51.88	352.28	804,723	5	7 320	121,222	16.56	25.41	131,622	936,345
1994	144	18 404	1,145,663	62.25	312.50	1,217,167	3	2 496	49,393	19.79	42.97	53,263	1,270,430
1995	167	23 053	2,517,164	109.19	316.75	2,664,649	0	0	0	0.00	0.00	0	2,664,649
1996	111	12 131	1,692,342	135.51	1305.71	1,779,202	0	0	0	0.00	0.00	0	1,779,202
1997	434	49 969	5,694,789	113.97	874.10	6,043,275	0	0	0	0.00	0.00	0	6,043,275
1998	54	4 220	308,085	73.01	571.50	344,454	0	0	0	0.00	0.00	0	344,454
1999	23	4 058	395,470	97.45	333.44	418,871	0	0	0	0.00	0.00	0	418,871
Total	2434	310 464	27,534,272	88.69	N/A	28,697,581	84	690 839	2,420,275	3.50	N/A	2,498,367	31,195,950

Geophysical Activity

Three geophysical programs were run in 1999 covering 354 km. There was one 3-D program and two combination 2-D/3-D programs. The total 3-D work accounted for almost 97% of total seismic run. The estimated cost of all programs was $269,724.



MANITOBA GEOPHYSICAL ACTIVITY SUMMARY 1975-1999

Year	Licenses Issued	Kilometers Run (km)	Total Program Costs $
1975	1	270	106,500
1976	3	112	118,302
1977	2	830	1,046,220
1978	5	1 828	3,451,370
1979	10	2 001	2,970,734
1980	10	851	1,843,438
1981	11	1 148	2,116,854
1982	19	879	1,805,512
1983	14	3 410	3,639,692
1984	23	2 731	5,547,086
1985	25	1 647	3,081,241
1986	8	338	1,227,227
1987	13	683	2,713,000
1988	13	2 148	2,129,550
1989	2	39	114,627
1990	2	30	118,452
1991	2	15	62,032
1992	8	299	370,198
1993	9	202	225,776
1994	14	222	890,307
1995	16	633	1,634,771
1996	30	1 457	5,480,000
1997	32	3 239	6,098,000
1998	13	212	619,072
1999	2	354	269,724

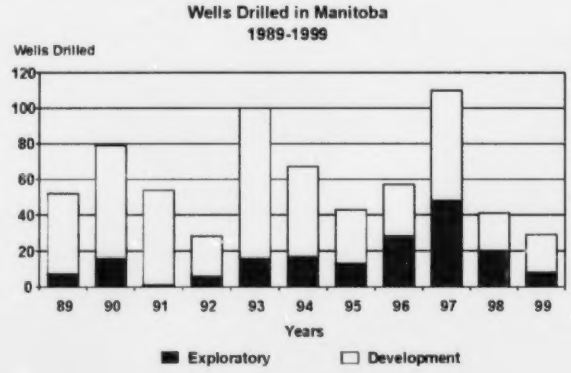
Summary of 1999 Geophysical Programs

License No.	Licensee	Contractor	Area	Type	Km Run
425*	Renaissance Energy Ltd.	Enertec Geophysical Services Ltd.	Manson	3D	176.9
426	Tundra Oil and Gas Ltd.	Impact Exploration Services Inc. & Polaris Explorer Ltd.	Goodlands	2D/3D	122.4
427	Tundra Oil and Gas Ltd.	Impact Exploration Services Inc. & Polaris Explorer Ltd.	Deloraine	2D/3D	54.4
				Total	**353.7**

* Program licensed in 1998, run in 1999

Drilling Activity

Drilling activity in Manitoba was down over 1998 levels. In 1999, 31 drilling licenses were issued, resulting in 5 different companies drilling 29 wells (including 1 structure test hole) - (29% lower than 1998). Five drilling contractors drilled 35 224 metres of hole for an average well depth of 1 318 m.



1999 Drilling Statistics by Operator and Contractor

Wells Drilled by Operator	1999	1998
Northrock Res./Progress Energy	-	10
Renaissance Energy Ltd.	11	3
Rigel Oil & Gas Ltd.	1	1
Tundra Oil and Gas Ltd.	14	14
Tri Link Resources Ltd.	-	5
Zargon Oil and Gas Ltd.	2	-
Search Energy Corp.	-	5
Wascana Energy Inc.	-	3
Upton Resources Inc.	1(STH)	-
Total	***29**	**41**

Wells Drilled by Contractor	1999	1998
Ensign Drilling Inc.	1	4
Precision Drilling (1987) Ltd.	11	4
Can-Am Drilling Ltd.	9	14
H & R Drilling Inc.	-	15
Big Sky Drilling Ltd.	3	-
Trinidad Drilling Ltd.	5	-
Jade Drilling Inc.	-	4
Total	***29**	**41**

* includes one structure test hole

1999 Drilling Activity by Area

Field	TWP	RGE WPM	Wells Drld.	Development Drld.	Development POW	Exploratory Drld.	Exploratory POW	Total POW	Dry/ Abd	Other
Daly	8-10	27-29	3	3	3	0	0	3	0	0
Tilston	5/6	29	0	0	0	0	0	0	0	0
Lulu Lake	1	[illegible]	1	1	1	0	0	1	0	0
Virden	9-12	25/26	2	2	2	0	0	2	0	0
Pierson	2/3	28/29	5	2	2	2	0	2	2	1
Kirkella	12	29	11	8	8	3	3	11	0	0
Birdtail	16	27	0	0	0	0	0	0	0	0
Other Areas			7	4	4	3	1	5	2	0
Total			**29***	**20**	**20**	**8**	**4**			
% of Total Drilled				**71**		**29**				

POW - Potential Oil Wells
* includes one structure test hole

Drilling Success Percentages
1981-1999

Year	Development Wells		Exploratory Wells		All Wells	
	Drilled	% Successful	Drilled	% Successful	Drilled	% Successful
1981	29	100	33	55	62	76
1982	117	95	78	67	195	84
1983	187	95	60	77	247	91
1984	210	95	36	44	246	88
1985	209	92	52	69	261	87
1986	90	95	43	91	133	93
1987	74	93	33	61	107	83
1988	53	85	18	17	71	68
1989	45	96	7	14	52	85
1990	63	94	15	73	78	90
1991	53	89	1	100	54	89
1992	22	82	6	33	28	71
1993	73	90	14	78	87	90
1994	50	96	17	41	67	82
1995	30	83	13	23	43	65
1996	29	83	28	50	57	68
1997	61	79	48	42	109	62
1998	21	95	20	45	41	71
1999	20	100	8	50	28	86

Well Licence Transfers

In 1999, there were 77 wells transferred from one operator to another. Most of the wells transferred were in the Tilston and Birdtail Fields. Progress Energy Ltd. acquired all of Northrock Resources Ltd.'s operations in the province. Renaissance Energy Ltd. transferred 22 wells, 19 to Tundra Oil and Gas Ltd. in the Tilston Field, and 3 to Alliance Energy Ltd. in the South Linklater area. As a result of its purchase of Rigel Oil and Gas Ltd., Talisman Energy Inc. acquired 14 wells. Tundra Oil and Gas Ltd. acquired all of Search Energy Corp.'s wells in the province.

PERVIOUS OPERATOR	NEW OPERATOR	FIELD/AREA	NO. OF WELLS
Antler River Resources Ltd.	618555 Saskatchewan Ltd.	Lyleton	2
Fawn Petroleums Ltd.	Prairie Well Servicing Ltd.	Daly	1
Northrock Resources Ltd.	Progress Energy Ltd.	Daly	3
		Birdtail	20
Renaissance Energy Ltd.	Alliance Energy Ltd.	S. Linklater	3
	Tundra Oil and Gas Ltd.	Tilston	19
Rigel Oil and Gas Ltd.	Talisman Energy Inc.	Tilston	1
		W. Lauder	1
		Bernice	1
		S. Pipestone	10
		McAuley	1
Search Energy Corp.	Tundra Oil and Gas Ltd.	Tilston	11
Transwest Energy Inc.	Leader Resources Ltd.	Daly	4
		Total	77

Drilling Activity 1951-1999

Year	Licenses Issued	Wells* Drilled	Well Classification		Oil and Gas Wells Completed Status			Metres* Drilled	Other** Wells Drilled
			E	D	PO	AD	S		
Pre 1951	15								
1951	123	18	14	4	6	10	2	14 956	103
1952	104	68	40	28	25	33	10	58 344	33
1953	127	102	31	71	73	29	0	76 682	9
1954	333	310	114	196	217	90	3	233 170	0
1955	382	354	57	297	279	66	9	254 774	5
1956	283	248	30	218	202	38	8	176 994	14
1957	225	224	71	153	139	85	0	155 469	2
1958	92	92	16	76	61	31	0	604 300	0
1959	50	47	16	31	30	17	0	30 792	2
1960	65	66	12	54	50	15	1	43 918	0
1961	26	28	11	17	11	16	1	17 389	1
1962	30	24	3	21	15	9	0	17 683	2
1963	59	57	9	48	39	16	2	43 451	0
1964	110	104	32	72	68	35	1	75 303	3
1965	79	65	40	25	27	38	0	50 298	10
1966	76	63	33	30	29	33	1	54 863	9
1967	90	85	42	43	44	41	0	67 068	0
1968	64	59	44	15	27	32	0	48 840	3
1969	98	46	30	16	14	29	3	31 376	38
1970	18	18	13	5	2	16	0	16 253	1
1971	24	15	6	9	2	8	5	13 026	6
1972	11	9	6	3	0	7	2	6 778	1
1973	19	17	17	0	0	17	0	14 083	0
1974	22	21	17	4	6	14	1	22 710	1
1975	9	7	7	0	2	4	1	6 716	4
1976	16	14	13	1	3	11	1	11 161	2
1977	21	11	10	1	9	2	0	9 359	2
1978	16	22	12	10	10	6	6	18 329	0
1979	27	25	9	16	16	9	0	20 537	0
1980	33	27	12	15	18	9	0	23 508	6
1981	76	6	33	29	47	15	0	61 011	5
1982	201	195	78	117	164	30	1	184 282	0
1983	290	247	60	187	223	24	0	229 304	5
1984	249	246	36	210	218	28	0	220 631	0
1985	313	261	52	209	229	29	3	228 387	7
1986	116	134	44	90	122	11	1	118 675	1
1987	116	107	33	74	90	17	0	96 970	0
1988	78	72	18	54	48	23	1	63 722	0
1989	54	52	7	45	44	8	0	42 948	0
1990	93	79	16	63	70	8	1	75 751	0
1991	51	54	1	53	48	6	0	48 698	0
1992	28	28	7	21	20	8	0	27 391	0
1993	102	87	13	74	78	9	0	90 343	0
1994	82	67	17	50	55	11	1	77 716	0
1995	56	43	13	30	29	14	0	50 591	0
1996	82	57	28	29	40	17	0	60 723	0
1997	129	109	48	61	68	39	2	108 040	0
1998	41	41	20	21	29	12	0	48 908	0
1999	31	28	8	20	24	4	0	38 224	1
TOTAL	4 835	4 215	1 349	2 866	3 070	1 079	67	3 549 582	276

* Excludes other wells drilled

** Other wells drilled includes: structure test holes, potash test holes, gas storage wells, helium

E - Exploratory

D - Development

PO - Potential Oil

AD - Abandoned Dry

S - Service

Exploratory* Wells Drilled in Manitoba by Formation 1974-1999

(Geological Period of Formation Drilled Into)

Year	Cretaceous	Jurassic	Mississippian	Devonian	Silurian	Ordovician	Cambrian	Precambrian	Total
1974	1	--	5	--	--	--	--	12	18
1975	1	--	4	1	--	4	--	1	11
1976	--	--	5	7	--	--	--	--	12
1977	--	--	10	--	--	--	--	--	10
1978	--	--	9	1	--	1	--	1	12
1979	--	--	6	1	--	--	--	2	9
1980	--	--	8	1	1	--	--	1	11
1981	--	--	21	6	--	--	--	5	32
1982	--	--	72	5	--	--	--	1	78
1983	--	1	48	9	1	--	--	1	60
1984	1	--	32	2	--	--	--	1	36
1985	--	--	49	2	--	--	--	1	52
1986	--	--	30	13	--	--	--	--	43
1987	--	--	13	19	1	--	--	--	33
1988	3	--	9	6	--	--	--	--	18
1989	--	1	2	3	1	--	--	--	7
1990	--	--	15	--	--	--	--	--	15
1991	--	--	1	--	--	--	--	--	1
1992	--	--	2	3	--	--	--	1	6
1993	--	2	9	2	--	--	--	1	14
1994	--	--	11	5	--	--	--	1	17
1995	--	--	9	4	--	--	--	--	13
1996	--	--	14	14	--	--	--	--	28
1997	--	2	19	21	1	3	-	2	48
1998	--	--	6	14	--	--	--	--	20
1999	--	--	4	3	--	--	--	1	8
Total	**6**	**6**	**413**	**142**	**5**	**8**	**-**	**32**	**612**

* Exploratory - includes outpost, new field wildcat, new pool wildcat and deeper pool wildcat classifications.

Horizontal Wells Drilled in Manitoba 1999

Field	Surface Location	Bottom Hole Location	Horizontal Length (m)	Licensee	Initial Production* (m^3/d)	Status
Lulu Lake	15D-27-1-21	A13D-26-1-21	760	Tundra Oil and Gas Ltd.	13.4	COOP
Virden	12A-32-11-26	3B-32-11-26	507	Mountcliff Resources Ltd.	26.3 (1month)	COOP
		1A-31-11-26	700**			
	7C-29-9-25	2B-29-9-25	533	Tundra Oil and Gas Ltd.	33.4	COOP
		3B-29-9-25	567**			
Pierson	14B-17-3-28	15A-17-3-28	465	Tundra Oil and Gas Ltd.	8.4 (5 months)	COOP
		9D-17-3-28	809			
	5D-12-3-29	13C-12-3-29	801	Tundra Oil and Gas Ltd.	3.5 (5 months)	COOP
		14C-12-3-29	736**			
Whitewater	5D-17-3-21	4A-20-3-21	825	Tundra Oil and Gas Ltd.	40.6 (4 months)	COOP
Souris Hartney	11C-16-6-22	1C-17-6-22	955	Tundra Oil and Gas Ltd.	7.4	COOP
Other Areas	9B-25-1-24	16D-25-1-24	457	Tundra Oil and Gas Ltd.	6.8 (5 months)	COOP
		16B-25-1-24	285**			
		16A-25-1-24	138***			

* Average oil rate for first six months (or less) of production

** Second Leg

*** Third Leg

Areas of Activity

Kirkella

In 1999, the Kirkella Field was the most active area in the Province with 5 vertical wells and 6 directional wells drilled.

Pierson

In 1999, there were 5 wells drilled in the Pierson Field of which 2 were drilled horizontally.

Daly

In 1999, there were 3 wells drilled in the Daly Field of which 2 were drilled directionally. There were 6 wells deepened to test the Bakken.

Virden

In 1999, there were 2 horizontal wells drilled in the Virden Field.

Other Areas

There were 4 wells, including 1 horizontal well, drilled in other areas in 1999.

Non-Abandoned Wells 1999

Field	Active[1] Oil Producers	Active[2] Other Wells
Daly	371	54
Tilston	21	2
Waskada	234	64
Lulu Lake	4	0
Virden	469	136
Whitewater	29	0
Pierson	134	37
Kirkella	24	3
Souris Hartney	5	1
Coulter	3	0
Regent	6	0
Mountainside	13	1
Birdtail	20	2
Confidential and Other Wells	5	*26
Other Areas	25	1
Total	**1363**	**327**

Notes:
(1) Wells classified as capable of oil production at year end that produced oil in 1999. Dual completions or commingled wells count as one well.
(2) Includes Water Injection, Salt Water Disposal, Water Supply, Gas Injection and Other Wells.
* Includes Salt Water Disposal wells not completed in a designated pool and water source wells.

Production and Markets

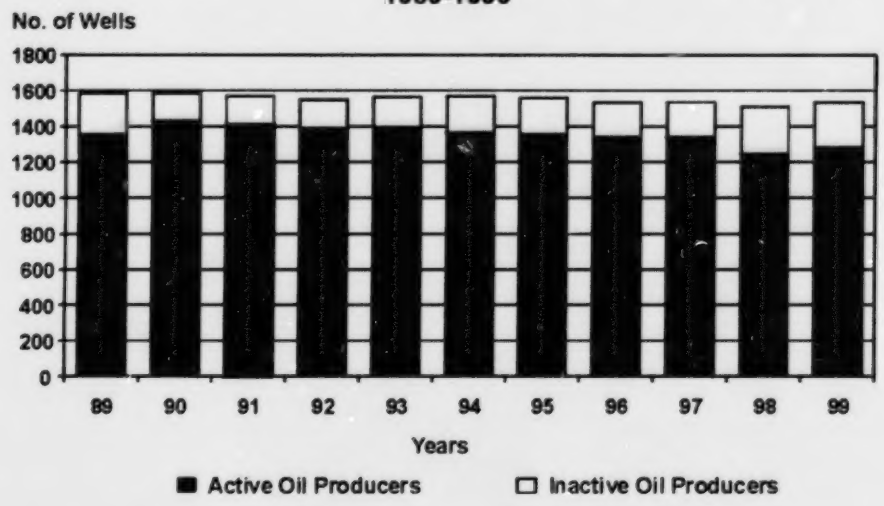
Annual oil production in Manitoba was down 8% from 1998 to 581 206 m^3 (3.7 million barrels).

Oil production from the Virden, Daly, Pierson and Waskada Fields accounted for 33%, 20%, 17% and 13% respectively of Manitoba's total production.

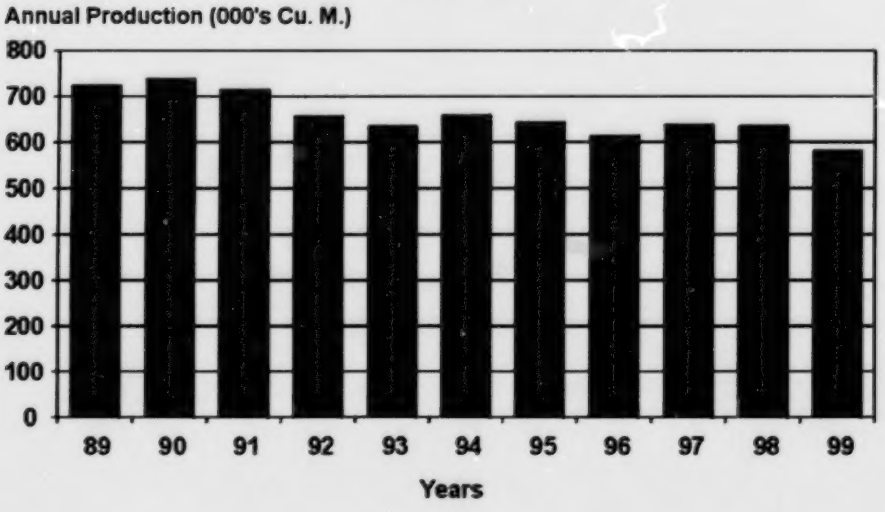
In 1999, a number of fields showed an increase in production over 1998 including Lulu Lake (64%), Whitewater (47%), and Kirkella (98%).

Of the total amount of oil purchased by refiners, approximately 13% was refined in Ontario and 87% went to refineries in the United States.

Oil Wells in Manitoba
1989-1999



Manitoba Crude Oil Production
1989-1999



Disposition of Manitoba Produced Crude Oil 1960-1999 (m^3)*

Year	Manitoba**	Ontario	Quebec	USA	Total
1951-59		Data Not Available			
1960	371 732	321 440	-	79 611	772 783
1961	148 029	573 637	-	-	721 666
1962	74 471	558 567	-	6 420	639 458
1963	94 452	533 598	-	-	628 050
1964	164 326	539 152	-	-	703 478
1965	82 651	701 955	-	-	784 606
1966	22 572	564 797	-	263 011	850 380
1967	27 417	416 097	-	476 577	920 091
1968	30 180	455 207	-	524 570	1 009 957
1969	31 323	620 216	-	351 918	1 003 457
1970	30 011	408 452	-	515 769	954 232
1971	24 539	388 389	-	490 412	903 340
1972	24 270	378 571	-	465 552	868 393
1973	273 687	95 745	-	455 093	824 525
1974	449 887	60 934	-	252 605	763 426
1975	383 383	312 397	-	12 596	708 376
1976	82 747	535 162	-	34 356	652 265
1977	21 877	609 298	-	41 309	672 484
1978	53 162	552 889	-	40 450	646 501
1979	33 258	549 524	-	48 261	631 043
1980	92 921	444 319	19 026	55 378	611 644
1981	180 402	189 659	150 177	57 702	577 940
1982	-	331 564	371 331	57 465	760 360
1983	81 887	258 611	380 911	71 544	792 953
1984	-	550 489	198 168	90 874	839 531
1985	-	245 364	483 508	211 331	940 203
1986	-	300 446	175 962	499 997	976 405
1987	-	349 807	113 418	464 806	928 031
1988	-	276 170	187 639	470 401	934 210
1989	-	428 731	178 744	272 305	879 780
1990	-	430 792	11 704	425 106	867 602
1991	-	412 502	-	341 138	753 640
1992	-	513 777	-	329 131	842 908
1993	-	296 994	-	390 765	687 759
1994	-	148 303	-	503 869	652 172
1995	-	224 341	-	367 332	591 673
1996	-	164 145	-	500 755	664 900
1997	-	216 325	-	652 173	868 498
1998	-	165 296	-	584 898	750 194
1999	-	104 461	-	718 492	822 953

* Includes some oil produced in Saskatchewan and transported into Manitoba.

** Manitoba's last refinery (Shell St. Boniface) closed in 1983.

Manitoba's Top 25 Oil Producers

Rank	Operator	1999		1998*		1999/1998 Increase (decrease)	
		m^3	% of Total	m^3	% of Total	m^3	% Change
1	Chevron Canada Resources Limited	186 884.6	32.3	209 875.3	33.4	(22 990.7)	(11.0)
2	Tundra Oil and Gas Ltd.	180 245.4	31.2	181 890.5	28.9	(1 645.1)	(.9)
3	Home Oil Company Limited	43 170.4	7.5	51 049.7	8.1	(7 879.3)	15.4)
4	Enron Oil Canada Ltd.	42 281.3	7.3	47 850.7	7.6	(5 569.4)	(11.6)
5	NCE Petrofund Corporation	40 958.1	7.1	50 373.4	8.0	(9 415.3)	(18.7)
5	Renaissance Energy Ltd.	12 818.6	2.2	5 424.8	.9	7 393.8	136.3
7	Rideau Petroleums Ltd.	10 359.8	1.8	9 999.3	1.6	360.5	3.6
81	Kiwi Resources Ltd.	9 243.4	1.6	8 781.7	1.4	461.7	5.3
9	Zargon Oil & Gas Ltd.	8 871.1	1.5	9 460.3	1.5	(589.2)	(6.2)
10	Mountcliff Resource Limited	8 555.0	1.5	9 321.9	1.5	(766.9)	(8.2)
11	Progress Energy Ltd.	7 540.9	1.3	10 046.5	1.6	(2 505.6)	(24.9)
12	CNRES (CANNAT)	4 738.1	.8	7 731.3	1.2	(2 993.2)	(38.7)
13	Geolock Resources Limited	3 779.2	.7	4 322.7	.7	(543.5)	(12.6)
14	Cosens Drilling Limited	3 653.1	.6	3 929.1	.6	(276.0)	(7.0)
15	Neutrino Resources Inc.	3 011.8	.5	3 740.7	.6	(728.9)	(19.5)
16	Upton Resources Inc.	2 357.5	.4	2 768.0	.4	(410.5)	(14.8)
17	Mead Petroleums & Farms Ltd.	1 740.9	.3	1 959.7	.3	(218.8)	(11.2)
18	NCE Resources	1 679.4	.3	5 135.3	.4	(1 009.6)	(37.5)
19	Leader Resources Limited	1 337.9	.2	1 332.8	.2	5.1	.4
20	Centoba Oils Limited	1 099.3	.2	1 223.7	.2	(124.4)	(10.2)
21	Gerrand Enterprises Ltd.	888.2	.2	980.2	.2	(92.0)	(9.4)
22	Tri Link Resources Ltd.	812.2	.1	515.9	.1	296.3	57.4
23	Antler River Resources Ltd.	765.3	.1	1 148.6	.2	(383.3)	(33.4)
24	2928419 Mantioba Limited	744.0	.1	736.5	.1	7.5	1.0
25	Talisman Energy Inc.	654.7	.1	1 702.6	.3	(1 047.9)	(61.5)

* Oil production figures may vary year to year due to well transfers and company mergers.

Manitoba Oil and Water Production
1951-1999

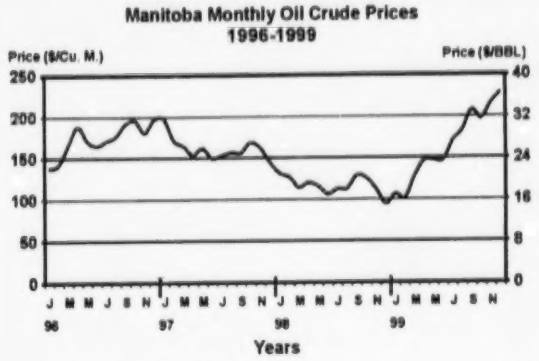
Year	Wells Capable of Producing (December)	Wells Producing (December)	Oil Prod. (m^3)	Water Prod. (m^3)	Total Fluid Prod. (m^3)	Avg. Water Cut(%)	Avg. Oil Prod. (m^3/day)
1951	5	5	1 854	152	2 006	7.6	5.1
1952	39	32	17 022	4 068	21 090	19.3	46.6
1953	105	93	104 193	50 614	154 807	32.7	285.5
1954	284	269	341 410	112 226	453 636	24.7	935.4
1955	554	486	658 802	160 092	818 894	19.5	1 804.9
1956	736	647	919 539	754 908	1 674 447	45.1	2 519.3
1957	846	739	967 721	1 709 792	2 677 513	63.9	2 651.3
1958	877	736	926 322	1 183 122	2 109 444	56.1	2 537.9
1959	875	730	803 461	1 273 632	2 077 093	61.3	2 201.3
1960	893	755	757 054	1 400 880	2 157 934	64.9	2 074.1
1961	874	729	711 969	1 510 627	2 222 596	68.0	1 950.6
1962	852	730	623 989	1 549 430	2 173 419	71.3	1 709.6
1963	839	683	599 212	1 550 287	2 149 499	72.1	1 641.7
1964	892	745	701 920	1 752 708	2 454 628	71.4	1 923.1
1965	889	748	786 050	2 004 068	2 790 118	71.8	2 153.6
1966	905	737	831 248	2 162 719	2 993 967	72.2	2 277.4
1967	911	752	887 572	2 288 271	3 174 843	72.1	2 431.7
1968	926	774	986 024	2 839 697	3 825 721	74.2	2 701.4
1969	923	754	985 981	3 091 398	4 077 379	75.8	2 701.3
1970	904	730	939 175	3 105 414	4 044 589	76.8	2 573.1
1971	900	695	890 622	3 463 885	4 354 507	79.5	2 440.1
1972	891	745	835 380	3 744 738	4 580 118	81.8	2 288.7
1973	882	687	807 882	3 983 740	4 791 622	83.1	2 213.4
1974	871	714	754 667	3 992 698	4 747 365	84.1	2 067.6
1975	831	686	701 459	3 974 389	4 676 848	85.0	1 921.8
1976	821	688	633 322	4 020 078	4 653 400	86.4	1 735.1
1977	804	701	630 466	4 226 135	4 856 601	87.0	1 727.3
1978	808	703	598 354	4 073 299	4 671 653	87.2	1 639.3
1979	811	706	583 377	3 945 337	4 529 714	87.1	1 598.3
1980	823	720	563 482	4 171 099	4 734 581	88.1	1 543.8
1981	853	748	542 695	4 565 210	5 107 905	89.4	1 486.8
1982	1 002	896	582 283	4 582 081	5 164 364	88.7	1 595.1
1983	1 160	1 041	736 934	5 079 646	5 816 580	87.3	2 019.0
1984	1 350	1 209	793 286	5 575 632	6 368 918	87.5	2 173.4
1985	1 505	1 366	820 729	5 685 409	6 506 138	87.4	2 248.6
1986	1 592	1 367	823 322	6 574 356	7 397 678	89.7	2 255.7
1987	1 624	1 434	781 806	6 317 251	7 099 057	89.0	2 141.9
1988	1 627	1 370	786 563	6 601 841	7 370 404	89.6	2 100.0
1989	1 581	1 353	722 820	6 607 461	7 330 281	90.0	1 980.4
1990	1 483	1 430	737 762	6 570 240	7 308 003	89.9	2 021.3
1991	1 567	1 408	712 792	6 703 450	7 416 242	90.4	1 952.8
1992	1 547	1 387	656 415	6 750 708	7 407 123	91.1	1 793.5
1993	1 563	1 394	634 561	6 189 214	6 823 775	90.7	1 738.5
1994	1 568	1 363	657 870	6 231 710	6 889 580	90.4	1 802.3
1995	1 556	1 354	642 650	5 831 904	6 474 554	90.1	1 760.7
1996	1 531	1 342	613 114	5 656 741	6 269 855	90.2	1 679.8
1997	1 535	1 337	636 681	5 729 013	6 365 694	90.0	1 744.3
1998	1 509	1 247	634 071	5 726 753	6 360 824	90.0	1 737.2
1999	1 494	1 246	581 206	5 428 067	6 009 273	90.3	1 592.3
TOTAL	–	–	**33 628 804**	**180 506 190**	**214 134 994**	–	–

Comparison of 1999 vs 1998 Oil Production by Field

Field	1999 m³	1999 % of Total	1998 m³	1998 % of Total	1999/1998 Increase (decrease) m³	1999/1998 Increase (decrease) % Change
Daly	115 407.8	19.9	128 490.7	20.3	(13 082.9)	(10.2)
Tilston	27 360.1	4.7	28 434.9	4.5	(1 074.8)	(3.8)
Waskada	76 548.1	13.2	89 666.5	14.1	(13 118.4)	(14.6)
Lulu Lake	8 418.7	1.4	5 134.2	.8	3 284.5	64.0
Virden	193 676.8	33.3	205 673.6	32.4	(11 996.8)	(5.8)
Whitewater	12 335.2	2.1	8 389.8	1.3	3 945.4	47.0
Pierson	98 725.7	17.0	116 384 3	18.4	(17 658.6)	(15.2)
Kirkella	15 830.4	2.7	8 014.6	1.3	7 815.8	97.5
Souris Hartney	6 698.7	1.2	7 126.0	1.1	(427.3)	(6.0)
Coulter	208.7	.0	291.3	.0	(82.6)	(28.4)
Regent	516.2	.1	1 012.1	.2	(495.9)	(49.0)
Mountainside	8 126.6	1.4	11 308.0	1.8	(3 181.4)	(28.1)
Birdtail	7 013.3	1.2	8 978.9	1.4	(1 965.6)	(21.9)
Other Areas	10 340.2	1.8	15 268.1	2.4	(4 927.9)	(32.3)
TOTAL	**581 206.5**	**100.0**	**634 173.0**	**100.0**	**(52 966.5)**	**(8.4)**

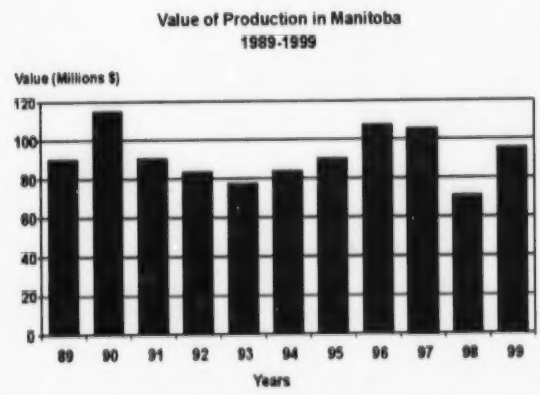
Oil Prices

Manitoba's overall average crude oil selling price in 1999 increased 42% from 1998 to $166.25/m^3 ($26.42 Cdn. per barrel). The average monthly price was lowest in February at $101.51/m^3 ($16.13 Cdn. per barrel) and highest in December at $229.09/m^3 ($36.40 Cdn. per barrel).



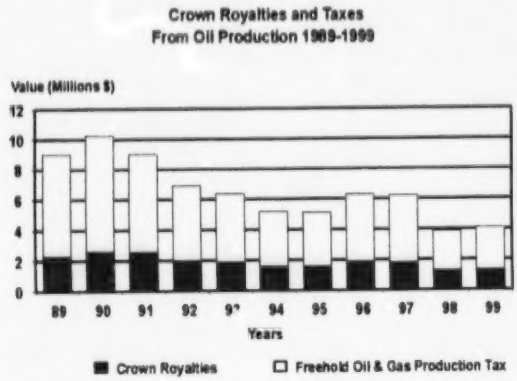
Value of Production

The total value of oil production during 1999 was $95.1 million, up 35% from 1998.



Provincial Revenue from Oil Production

During 1999, the Manitoba government collected approximately $4.8 million in revenues ($1.3 million in Crown oil royalties, $2.8 million in freehold oil taxes, and $0.7 million Crown lease sale bonuses, rentals and fees), resulting in a 4% increase from 1998. These figures do not include provincial revenue from corporate capital tax, sales tax, municipal tax and corporate and individual income tax.



Manitoba Crude Oil Production and Sales Value
1951-1999

Year	Annual Production (m^3)	Cumulative Production (m^3)	1951-1975 Value of Sales (000's $)	Cumulative Value of Sales (Dec. 31) (000's $)	Average* Wellhead Price ($/$m^3$)	($/bbl)
1951	1 854	1 854	26	26	15.58	2.48
1952	17 022	18 876	229	255	13.77	2.24
1953	104 193	123 069	1,715	1,970	16.51	2.62
1954	341 410	464 479	5,620	7,590	16.46	2.62
1955	658 802	1 123 281	9,517	17,107	14.56	2.31
1956	919 539	2 042 820	13,418	30,524	14.61	2.32
1957	967 721	3 010 541	15,231	45,755	15.81	2.51
1958	926 322	3 936 863	14,265	60,020	15.40	2.45
1959	803 461	4 740 324	11,615	71,635	14.46	2.30
1960	757 054	5 497 378	10,690	82,325	14.16	2.25
1961	711 969	6 209 347	10,133	92,458	14.27	2.27
1962	623 989	6 833 336	9,500	101,958	15.12	2.49
1963	599 212	7 432 548	9,183	111,141	15.33	2.44
1964	701 920	8 134 468	10,694	121,835	15.31	2.43
1965	786 050	8 920 518	12,270	134,105	15.59	2.48
1966	831 248	9 751 766	13,087	147,192	15.73	2.50
1967	887 572	10 639 338	13,974	161,166	15.77	2.51
1968	986 024	11 625 362	15,561	176,727	15.79	2.51
1969	985 981	12 611 343	15,615	192,342	15.82	2.51
1970	939 175	13 550 518	14,848	207,200	15.80	2.51
1971	890 622	14 441 140	15,445	222,645	17.31	2.75
1972	835 380	15 276 520	14,586	237,231	17.46	2.77
1973	807 882	16 084 402	17,155	254,386	21.23	3.37
1974	754 667	16 839 069	27,182	281,568	36.00	5.72
1975	701 459	17 540 528	31,453	313,021	44.81	7.12

Year	Annual Production (m^3)	Cumulative Production (m^3)	1976-1999 Value of Sales (000's $)	Cumulative Value of Sales (Dec. 31) (000's $)	Average* Wellhead Price ($/$m^3$)	($/bbl)
1976	633 322	18 173 850	33,533	346,554	52.99	8.42
1977	630 466	18 804 316	40,457	387,011	64.12	10.19
1978	598 354	19 402 670	45,953	432,964	76.77	12.20
1979	583 377	19 986 047	48,403	481,367	82.97	13.19
1980	563 482	20 549 529	54,958	536,325	97.57	15.51
1981	542 695	21 092 224	64,055	600,380	118.03	18.82
1982	582 283	21 674 507	100,537	700,917	173.57	27.58
1983	736 934	22 411 441	152,350	853,267	206.64	32.84
1984	793 286	23 204 727	169,296	1,022,563	214.04	34.02
1985	820 729	24 025 456	180,049	1,202,612	220.21	35.00
1986	823 322	24 848 778	95,337	1,297,949	114.66	18.23
1987	781 806	25 630 584	109,202	1,407,151	139.76	22.21
1988	786 563	26 417 147	78,660	1,485,811	102.26	16.25
1989	722 820	27 139 967	90,101	1,575,912	124.66	19.81
1990	737 762	27 877 729	114,805	1,609,717	155.85	24.78
1991	712 792	28 590 521	90,343	1,781,060	126.74	20.15
1992	656 415	29 246 936	86,289	1,867,349	131.46	20.89
1993	634 561	29 881 497	77,486	1,944,835	122.07	19.40
1994	657 870	30 539 367	83,620	2,028,455	126.76	20.14
1995	642 650	31 182 017	90,238	2,118,693	140.51	22.33
1996	613 114	31 795 131	107,245	2,225,938	173.90	27.63
1997	636 681	32 431 812	104,884	2,330,822	161.48	25.66
1998	634 071	33 065 883	70,730	2,401,552	116.97	18.54
1999	581 206	33 628 804	95,129	2,496,681	166.25	26.42

* Average Wellhead Price = Value of Sales/Volume Sold

Direct Revenues to Crown from Oil Exploration and Development in Manitoba*
1951-1999

Year	Crown Royalties ($000's)	Freehold Oil Tax ($000's)	Crown Oil & Gas Rights Revenue ($000's)	Miscellaneous Fees ($000's)	Total Direct Revenue ($000's)
1951	2	--	4	5	11
1952	7	--	7	9	23
1953	50	46	6	8	110
1954	156	64	106	24	350
1955	230	92	696	10	1,028
1956	318	83	668	18	1,087
1957	382	126	531	--	1,039
1958	356	137	293	31	817
1959	344	165	215	2	726
1960	313	130	102	2	547
1961	306	105	228	5	644
1962	298	96	116	10	520
1963	276	91	87	3	457
1964	307	86	157	23	573
1965	344	84	164	3	595
1966	353	96	154	3	606
1967	370	111	139	10	630
1968	411	116	99	14	640
1969	405	128	115	4	652
1970	377	143	43	1	564
1971	373	143	55	2	573
1972	348	138	16	1	503
1973	404	144	15	2	565
1974	1,599	5,216	15	4	6,834
1975	1,823	6,498	12	1	8,334
1976	2,024	6,128	11	11	8,174
1977	2,263	7,012	10	3	9,288
1978	2,281	8,018	10	6	10,315
1979	2,280	8,769	988	12	12,049
1980	2,575	9,159	2,012	11	13,757
1981	2,715	10,022	1,846	12	14,595
1982	3,176	11,947	1,292	28	16,443
1983	4,111	14,825	1,347	59	20,342
1984	4,238	15,642	2,466	67	22,413
1985	4,323	14,977	4,522	90	23,912
1986	2,570	8,179	1,195	53	11,997
1987	2,740	8,649	855	55	12,299
1988	2,034	5,861	639	40	8,574
1989	2,273	6,757	364	37	9,431
1990	2,578	7,662	266	35	10,541
1991	2,567	6,438	213	37	9,255
1992	1,978	4,938	209	21	7,146
1993	1,884	4,501	1,005	41	7,431
1994	1,581	3,620	1,415	44	6,660
1995	1,618	3,480	2,860	43	8,001
1996	1,866	4,450	2,024	51	8,391
1997	1,806	4,431	6,335	55	12,627
1998	1,259	2,579	752	30	4,620
1999	1,286	2,751	764	18	4,819
TOTAL	**68,178**	**194,833**	**37,443**	**1,054**	**301,508**

* Does not include corporate capital tax, sales tax, corporate and individual income tax or oil export tax. All figures are based on calendar year receipts.

Surface Owners

Prior to drilling a well, an oil company is required to negotiate a surface lease, which provides right of entry, with the landowner. The typical surface lease includes a first-year bonus payment and a subsequent annual rental for the duration of the lease.

Where the landowner is renting the land to another party, the oil company must obtain the consent of both the landowner and the occupant.

After a lease has been signed, the landowner and occupant then determine what share of the compensation paid by the oil company each receives.

An estimated $3.4 million was paid by oil companies to landowners in the form of first-year bonuses and annual rental fees.

Disputes relating to right-of-entry or compensation are referred to the Surface Rights Board. The Board's principal function is to arbitrate disputes between the petroleum industry and landowners regarding use of land for exploration, development and related operations, and to determine what compensation should be paid to the landowner.

The Minister of Intergovernmental Affairs is responsible for the administration of The Surface Rights Act. The Board's office is located in Brandon.

Spills and Reclamation

Accidental spills of oil and salt water occasionally result from oil industry operations. Regulations require land damaged by oil and salt water spills to be fully rehabilitated by the responsible operator. Sites used for wells or other production facilities must also be fully rehabilitated when the well or facility is abandoned.

In 1999, 42 spills involving a total volume 637.5 m^3 occurred. The volume of fluid spilled is equal to 0.012 percent of the total volume of oil and salt water produced.

Activities by industry resulted in 30 abandoned wellsites becoming fully rehabilitated in 1999. Further rehabilitation is required on 540 spill sites and abandoned wellsites.

Municipal Taxes

Oil producers in Manitoba pay municipal taxes on production facilities, including: oil wells, batteries, salt water disposal wells, salt water disposal plants and water injection wells.

The portioned municipal tax assessment on these facilities for the calendar year 1999 was approximately $26.9 million dollars.

Actual tax revenue from these assessments should amount to approximately $2.4 million for municipalities with oil and gas facilities.

Manitoba Drilling Incentive Program (1992-2004)

The Manitoba Drilling Incentive Program provides eligible wells a royalty/tax free "holiday volume."

Highlights of the program include:

- a special new formation incentive of 50 000 m^3 for each well that is the first to produce from each deeper non-productive formation.
- greater benefit for exploratory wells drilled into existing producing formations.
- flexibility in the allocation of earned "holiday volumes."
- holiday oil volume of 500 m^3 for any marginal wells on which a major workover is conducted.

Effective January 1, 1993 a horizontal well is eligible for a 10 000 m^3 holiday volume.

Effective April 1, 1999 a reduction in Crown oil royalty and freehold oil production tax was implemented for vertical wells, reactivated wells and new EOR projects.

Under the new Third Tier status, Crown royalty rates are reduced by an average of 14.5% and freehold oil production tax rates by 44%.

A total of 29 wells received a holiday volume in 1999 to bring the total number of wells with a holiday oil volume in the program to 159.

Detailed information on the program is available from the Petroleum and Energy Branch.

Oil Reserves

As of December 31, 1999, total and remaining proved developed reserves in Manitoba were 37.4 10^6 m^3 and 3.78 10^6 m^3, respectively. In 1999, oil production totalled 581.2 10^3 m^3, down 8.4% from 1998. Average daily production for 1999 was 1 592.4 m^3/d, with exit year production of 1 740.2 m^3/d. Reserve additions in 1999 were 180.1 10^3 m^3, replacing 31.0% of production. The reserve life index at the end of 1999 was 6.5 years, down from 6.6 years in 1998.

The majority of Manitoba's proved developed reserves are in the Lodgepole and Lower Amaranth formations. The Lodgepole accounts for 82% of the province's total proved reserves and 69% of the remaining reserves. While the Lower Amaranth accounts for 8% of the province's total proved reserves and 13% of the remaining reserves. The four largest fields in the province; Virden, Daly, Pierson and Waskada contain 95% of the province's total proved reserves and 90% of the remaining reserves.

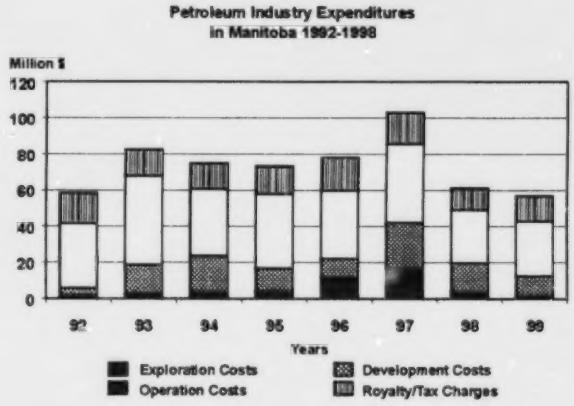
Combined reserve additions of 1639 $10^3 m^3$ were booked for the Virden Lodgepole A Pool, Pierson Lam/MC 3b A Pool, Whitewater Lodgepole WL A Pool and the Kirkella Lodgepole Daly A Pool.

Reserve reassessment resulted in a combined reduction in reserves of 92.9 $10^3 m^3$ in the Daly Lodgepole A Pool and the Virden Lodgepole B Pool.

Industry Expenditures

It is estimated that industry spent $57.0 million in the province compared with $61.1 million in 1998. The total expenditures can be broken down into seven categories: exploration, development, land, producing costs, royalties, abandonment and reclamation, and other costs.

- The exploration component, which includes, exploratory drilling costs, geophysical and geological work, amounted to approximately $2.1 million.
- Development costs, which include development drilling, workovers, recompletions and production facility construction accounted for approximately $10.4 million.
- Land costs include freehold and Crown mineral and surface rights acquisition costs, fees and rentals. The total estimated cost of this component amounted to $5.2 million.
- Production costs were estimated at $21.8 million and include well and facility operating costs.
- Royalties and Production taxes including freehold production royalties, Crown royalties and freehold production taxes, are estimated at approximately $14.2 million.
- Costs associated with abandonment of wells and rehabilitation of sites damaged by oil field operations totalled approximately $0.9 million.
- Other costs include municipal taxes, right-of-way acquisitions and miscellaneous expenditures, totaling approximately $2.4 million.



*Operation costs include production costs, land costs, abandonment costs, and other costs.

Petroleum Industry Employment

Direct employment in the petroleum industry during 1999 was approximately 300-350 person years. Of this total, approximately 20 percent is attributed to geophysical and drilling activity, while the remaining 80 percent is associated ongoing operation and maintenance of existing facilities.

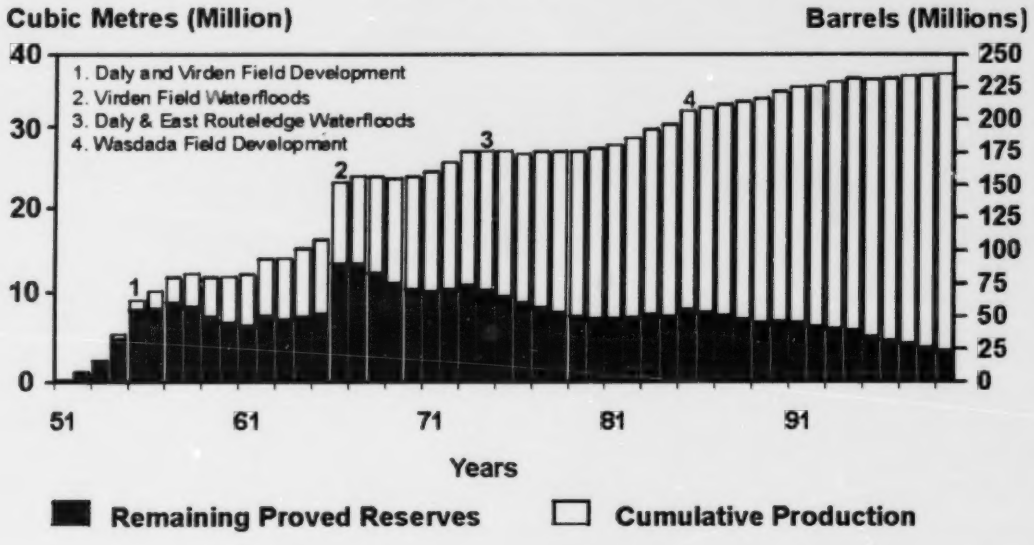
In addition, there are indirect jobs created as a result of petroleum industry activity. For every direct job in the petroleum industry it is estimated that 1.2 indirect jobs are created. This results in another approximately 390 person years of indirect employment.

Crude Oil Reserves in Manitoba, 1974-1999

Year	Production (m^3)	Proved Reserve Additions(m^3)	Remaining Proved Reserves (m^3)	Life Index*
1974	754 667	15 000	11 059 000	14.65
1975	701 459	4 000	10 362 000	14.77
1976	633 322	7 000	9 735 000	15.37
1977	630 466	15 000	9 120 000	14.46
1978	598 354	22 000	8 543 000	14.28
1979	583 377	24 000	7 984 000	13.64
1980	563 482	314 000	7 735 000	13.73
1981	542 695	544 000	7 736 000	14.25
1982	582 322	733 000	7 927 000	13.60
1983	736 934	954 000	8 154 000	11.06
1984	793 284	663 000	8 024 000	10.11
1985	820 729	1 628 000	8 831 000	10.76
1986	823 322	439 000	8 447 000	10.26
1987	781 806	401 000	8 066 000	10.32
1988	768 563	343 000	7 650 000	9.95
1989	722 820	353 000	7 284 000	10.08
1990	737 762	865 600	7 412 000	10.05
1991	712 792	515 000	7 214 200	10.12
1992	656 415	137 600	6 695 000	10.20
1993	634 561	429 800	6 492 000	10.23
1994	657 870	468 900	6 301 700	9.58
1995	642 650	-97 200	5 562 100	8.60
1996	613 114	128 800	5 077 700	8.30
1997	636 726	258 000	4 699 000	7.40
1998	634 173	111 600	4 176 300	6.60
1999	581 226**	180 100	3 775 200	6.50

* Remaining Proved Reserves divided by Annual Production.
** Reflects post-1999 amendments to production.

Manitoba Established Oil Reserves (History) 1951-1999



Manitoba Oil Fields - 1999

	Daly	Tilston	Waskada	Lulu Lake	Virden	White-Water	Pierson	Kirkella	Souris Hartney	Coulter	Regent	Mountain-side	Birdtail	Other Areas	Total
Discovery Year	1951	1952	1952	1953	1953	1953	1954	1957	1962	1952	1955	1982	1996	—	—
Avg. Depth to Producing Formation (m)	835	940	918	1 005	634	782	1 003	734	655	968	767	895	522	858	—
Producing Formation	L/B	MC	MC/LAm	L	L	LAm/L	MC/LAm	L	L	MC/LAm	L	L	B	LAm MC/L	—
Well Spacing (ha)	16/8	16	16/4	16	16/8	16	16/32	16	32	16	16	16	16	16	—
Active Oil Wells 1999*	371	21	234	4	469	29	134	24	5	3	6	13	20	25	1363
1999 Oil Prod. (`000 m^3)	115.4	27.4	76.5	8.4	193.7	12.4	98.9	9.6	6.7	0.2	0.5	8.1	6.9	10.3	581.2
Cum. Oil Prod. (Dec. 31, 1999) (`000 m^3)	5 716.7	340.9	3 185.0	87.5	21 819.0	274.7	1 420.2	325.1	192.4	15.3	43.2	83.7	23.5	94.8	33 628.4
Remaining Established Reserves (Dec. 31, 1999) (`000 m^3)	890.1	46.1	493.7	18.4	1 566.7	79.9	444.9	60.3	18.4	0.3	1.7	43.3	17.5	40.0	3 775.2**

L = Lodgepole
LAm = Lower Amaranth
MC = Mission Canyon
B = Bakken

* Wells classified as capable of oil production at year end that produced oil in 1999. Dual completions or commingled wells count as one well.
** Total includes confidential remaining reserves.

COMMENTS?

What do you think of this publication? We would appreciate your comments or ideas as to how this publication can be improved. Drop us a note at:

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